

Amendments to the Claims:

Rewrite the claims as set forth below. This listing of claims replaces all prior versions and listings of claims in the application:

1. (currently amended) A method for nested control flow, the method comprising:
setting a context bit to at least one of: a first state and a ~~second state~~ second state;
receiving a first instruction having a plurality of extra bits;
~~determining whether to read~~ reading the context bit based on the plurality of extra bits;
and
~~if the context bit is read, executing~~ executing the instruction when the context bit is in the first state.
2. (currently amended) The method of claim 1 further comprising:
~~upon the executing of the first instruction, maintaining~~ maintaining a counter value wherein the counter value indicates a nesting depth of context bits that are set to a second state.
3. (currently amended) The method of claim 2 wherein the counter value is stored in a non-dedicated memory device.
4. (original) The method of claim 3 wherein the non-dedicated memory device is a general purpose register.
5. (currently amended) The method of claim 2 further comprising:
prior to setting the context ~~bit~~ bits, resetting the counter value.
6. (currently amended) The method of claim 2 further comprising:
receiving a second instruction having a plurality of extra bits;

determining whether to read reading the context bit based on the plurality of extra bits; if the context bit is read, executing executing the second instruction when the context bit is in the first state; and

upon executing the second instruction, maintaining maintaining the counter value.

7. (currently amended) The method of claim 6 further comprising:

terminating a computation process using the counter value exiting a nested control flow using the counter value.

8. (currently amended) An apparatus for nested control flow, the apparatus comprising:

a processor having a context bit memory device capable of storing a context bit;

a first memory device storing a plurality of instructions, wherein each of the plurality of instructions includes a plurality of extra bits, and wherein the processor is operative to execute the plurality of instructions; and

a second memory device operably coupled to the processor, and wherein the second memory device receiving receives an incrementing counter instruction upon the execution of one of the plurality of instructions.

9. (original) The apparatus of claim 8 further comprising:

a context bit memory device capable of storing the context bit.

10. (original) The apparatus of claim 8 wherein the second memory device is a general purpose register.

11. (currently amended) The apparatus of claim 8 wherein the processor:

receives a first instruction having a plurality of extra bits from the first memory and the processor device; and

determines whether to read reads the context bit based on the plurality of extra bits.

12. (currently amended) The apparatus of claim 11 wherein the processor: executes the first instruction when the context bit is read and is in a first state and the processor state; and

maintaining maintains a counter value wherein the counter value indicates a nesting depth of context bits that are set to a second state, in response to using the incrementing counter instruction.

13. (currently amended) The apparatus of claim 12 wherein the process receives processor:

receives a second instruction having a plurality of extra bits from the memory and the processor determines first memory device;

whether to read reads the context bit based on the plurality of extra bits and if bits; the context bit is read, executing executes the second instruction when the context bit is in a first state and incrementing state; and

increments the counter bit in response to value using the incrementing counter instruction.

14. (currently amended) A graphics processing device comprising:
a plurality of arithmetic logic units, each of the plurality of arithmetic logic units having a context bit memory device capable of storing a context bit;

a first memory device storing a plurality of instructions, wherein each of the plurality of instructions includes a plurality of extra bits, and wherein the arithmetic logic units are operative to execute the plurality of instructions; and

a second memory device operably coupled to the processor, wherein the second memory device receiving receives an incrementing counter instruction upon the execution of one of the plurality of instructions.

15. (original) The graphics processing device of claim 14 wherein the second memory device is a general purpose register.

16. (currently amended) The graphics processing device of claim 14 wherein each of the plurality of arithmetic logic units:

receive at least one of the plurality of instructions and the arithmetic logic units determine instructions; and

whether to read reads the context bit based on the plurality of extra bits.

17. (currently amended) The graphics processing device of claim 16 wherein the plurality of arithmetic logic units:

execute the instructions when the context bit is read and is in a first state and maintaining state; and

maintains a counter value wherein the counter value indicates a nesting depth of context bits that are set to a second state, in response to using the incrementing counter instruction.

18. (currently amended) The graphics processing device of claim 17 wherein the plurality of arithmetic logic units are operative to terminate a processing chain utilizing the

~~context bit stored in the second memory device exit a nested control flow using the context bit stored in the second memory device.~~

19. (currently amended) A method for nested control flow, the method comprising:
setting a context bit to at least one of: a first state and a second ~~state~~ state;
receiving a first instruction having a plurality of extra bits;
~~determining whether to read reading~~ the context bit based on the plurality of extra bits;
~~if the context bit is read~~, executing the first instruction when the context bit is in the first state; and
upon the executing of the first instruction, maintaining a counter value wherein the counter value indicates a nesting depth of context bits that are set to a second ~~state~~ state in a general purpose register.

20. (currently amended) The method of claim 19 further comprising:
receiving a second instruction having a plurality of extra bits;
~~determining whether to read reading~~ the context bit based on the plurality of extra bits;
~~if the context bit is read~~, executing the second instruction when the context bit is in the first state; and
upon executing the second instruction, incrementing the counter value.

21. (currently amended) The method of claim 20 further comprising:
~~terminating a computation processing using the counter value exiting a nested control flow using the counter value.~~